

Remarks:

Applicants gratefully acknowledge the Examiner's finding that claims 1-3 would be allowable if rewritten or amended to overcome the rejections under 35 USC 112. Claim 1 has been amended to provide proper antecedent for "the inner transition radius" recited in dependent claim 3. Basis for the amendment appears on page 6 line 19 of the specification. Applicants traverse the indefiniteness rejection against claims 1 and 2.

The Examiner has rejected claims 1 and 2 under 35 USC 112, second paragraph, as being indefinite for failure to particularly point out and distinctly claim the subject matter which applicants regard as their invention. Specifically, the Examiner alleges indefiniteness in the phrase "under some operational conditions".

Applicants respectfully traverse the Examiner's finding of indefiniteness. Applicants' invention, as recited in the characterizing portion of claims 1 and 2, is the geometric shape or profile of the blade, particularly its leading edge. Inasmuch as applicants' novel blade geometry is related to the endwall shock, the preamble portion of the claims establishes the presence of that shock at some (but not all) operational conditions. One skilled in the art would readily understand that the operational conditions referred to include the aircraft altitude and flight speed and the engine rotational speed, and would further recognize that factors such as the shape and aerodynamic characteristics of an adjacent air intake can influence the operational conditions under which such a shock will be present. Moreover, those skilled in the art would know, or could determine by appropriate analysis and/or testing, the operational conditions conducive to endwall shock formation. Given that an endwall shock of known radial extent will form under some conditions, the claims make clear how to construct a blade according to applicant's invention. Thus, the absence of a recitation of those specific (or even general) conditions under which an endwall shock forms in no way detracts from the definiteness of claims 1 and 2.

The Examiner has rejected claim 3 under 35 USC 112, second paragraph, as being indefinite for lack of antecedent (with respect to claim 1). In particular, the Examiner

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points to the lack of antecedent for "the inner transition radius". Applicants concur with the Examiner's finding. Accordingly, claim 1 has been amended to reflect proper antecedent.

The Examiner has objected to the drawings for failure to include reference sign σ_2 . The Examiner's attention is directed to the enclosed figures 2, 3 and 6 in which the sweep angle σ_2 is highlighted (photocopies of both the informal figures and the corresponding formal figures are included). The illustration of the sweep angle is most meaningful in the side elevations of figures 2 and 6. The sweep angle is shown in Fig. 3 to facilitate the reader's correlation of Fig 3 with Fig 2. The inclusion of σ_2 in Figures 5 and 7 would not improve a reader's understanding of the invention.

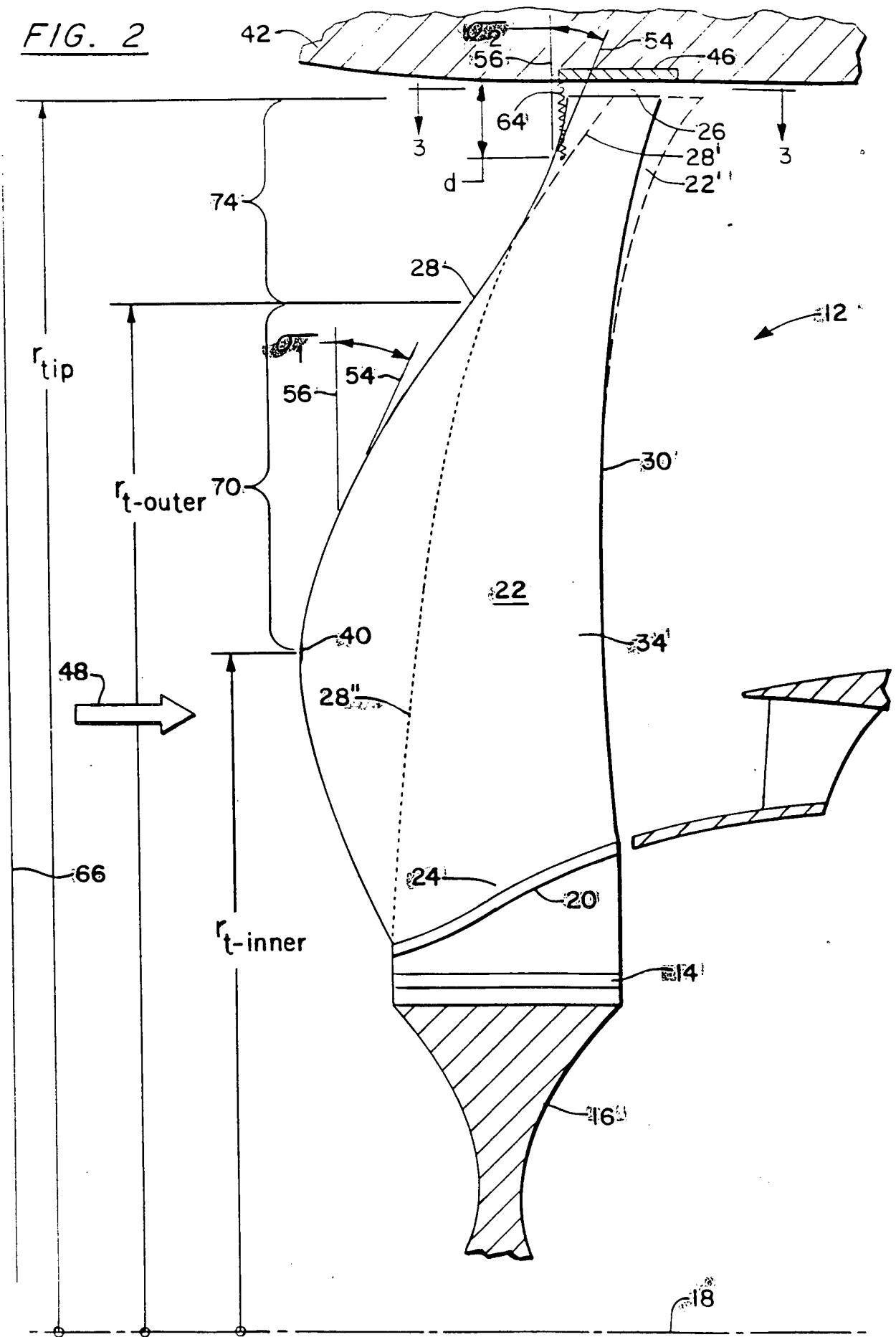
In view of the foregoing, applicants submit that the application is now in condition for allowance. The Examiner's reconsideration and reexamination of the application and allowance of claims 1-3 is respectfully requested.



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FIG. 2



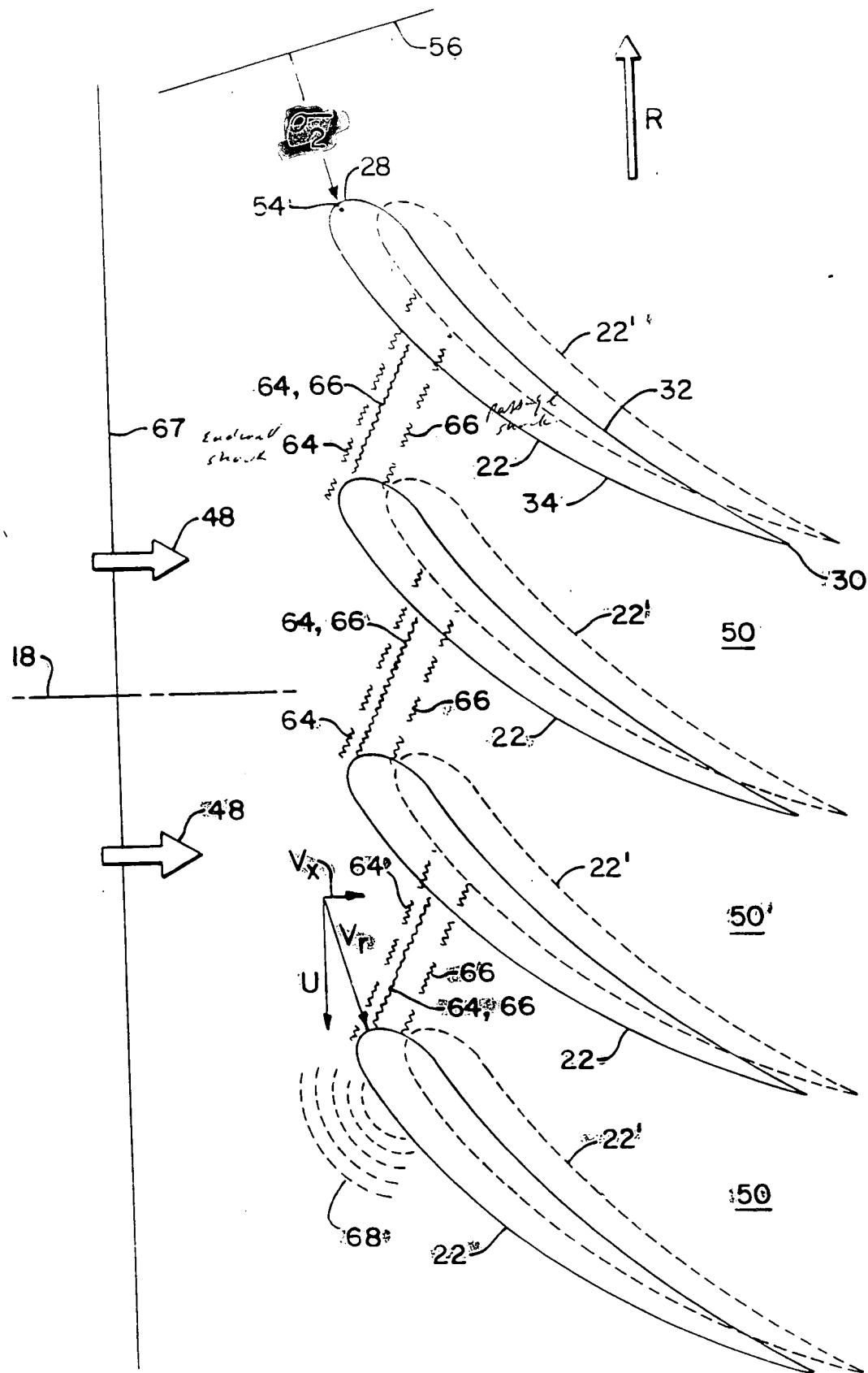


FIG. 3

FIG. 6

